

What is claimed is:

1. A method for identifying segments of a broadcast program signal comprising, in combination, the steps of:

receiving said broadcast program signal from an external source,
recording said broadcast program signal as received in a storage device, and
identifying repeating segments of said broadcast program signal.

2. A method for identifying segments of a broadcast program signal as set forth in claim 1 wherein said step of identifying repeating segments of said broadcast program signal comprises the step of comparing a portion of said broadcast program signal with previously received and recorded portions of said broadcast program signal.

3. A method for identifying segments of a broadcast program signal as set forth in claim 1 wherein said method further comprises the step of storing bookmarking information which identifies the location of at least one of said repeating segments in said storage device.

4. A method for identifying segments of a broadcast program signal as set forth in claim 1 further comprising the step of classifying said repeating segments based on their duration.

5. A method for identifying segments of a broadcast program signal as set forth in claim 4 wherein said step of classifying said segments based on their duration consists of determining whether said duration is greater than or less than a predetermined elapsed time duration.

6. A method for identifying segments of a broadcast program signal as set forth in claim 5 wherein repeating segments having a duration greater than said predetermined elapsed time duration are classified as music recordings.

7. A method for identifying recordings in broadcast radio programming containing other content comprising, in combination, the steps of:

recording said broadcast radio programming on a signal storage device,
searching said broadcast radio programming for matching program segments that substantially duplicate one another, and
storing information specifying the location of at least one of said matching program segments.

8. A method for identifying recordings in broadcast radio programming containing other content as set forth in claim 7 wherein said information specifying the location of at least one of said matching program segments contains data indicating the duration of said matching program segments.

9. A method for identifying recordings in broadcast radio programming containing other content as set forth in claim 7 wherein said step of searching said broadcast programming for matching program segments that substantially duplicate one another comprises the substeps of:

extracting a series of fingerprint data values from said broadcast programming, each of said fingerprint data values being indicative of predetermined characteristics of particular segment of said broadcast programming,
storing said fingerprint values in an addressable memory device, and
searching for matching sequences of fingerprint values.

10. A method for identifying recordings in broadcast radio programming containing other content as set forth in claim 9 wherein said substep of searching for matching sequences of fingerprint values comprises creating a sorted index to sequences of said fingerprint values and employing said sorted index to locate matching sequences of index values.

11. A method for identifying recordings in broadcast radio programming containing other content as set forth in claim 9

12. A method for identifying repeating content in a broadcast program signal comprising, in combination, the steps of:

processing said signal to create a sequence of identification values indicative of the content of a corresponding sequence of intervals of said program signal, and

searching said sequence of identification values for substantially matching patterns of values indicative of said repeating content.

13. A method for identifying repeating content in a broadcast program signal as set forth in claim 12 wherein said step of processing said signal to create a sequence of identification values employs a wavelet transformation.

14. A method for identifying repeating content in a broadcast program signal as set forth in claim 12 wherein said step of processing said signal to create a sequence of identification values comprises the substeps of:

processing different portions of said signal using a wavelet transform to generate a plurality of different wavelet coefficients, and

combining predetermined groups of said wavelet coefficients to create said sequence of identification values.

15. The method for identifying the presence of a pre-recorded program segment in a source program signal comprising, in combination, the steps of:

- employing a wavelet transform to extract first sequence of wavelet coefficient values from said pre-recorded program signal,
- employing said wavelet transform to extract a second sequence of wavelet coefficient values from said source program signal, and
- searching said second sequence for the values substantially matching at least a portion of said first sequence of wavelet coefficient values.

16. The method for identifying the presence of a pre-recorded program segment in a source program signal as set forth in claim 15 wherein said step of searching said second sequence for the values substantially matching at least a portion of said first sequence of wavelet coefficient values comprises the substeps of:

- converting said first sequence of wavelet coefficients into at least two identification fingerprint values characterizing the beginning and ending of said pre-recorded program segment,
- converting said second sequence of wavelet coefficient values into a succession of fingerprint values characterizing successive samples of said source program signal, and
- searching said succession of fingerprint values for said identification fingerprint values.

17. The method for identifying the presence of a pre-recorded program segment in a source program signal as set forth in claim 16 wherein each of said fingerprint values comprises a binary word in which selected bits represent corresponding ones of said wavelet coefficients.

18. The method for identifying the presence of a pre-recorded program segment in a source program signal as set forth in claim 16 wherein said first sequence of wavelet coefficient values is extracted from a different portion of said pre-recorded program signal.